

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on June 24, 2003, and the references cited therewith.

Claims 1, 9, 14, 22, 30, 51, and 55 are amended, no claims are canceled, and no claims are added; as a result, claims 1, 2, 4-10, 12-15, 17-23, 25-31, 33-37, 51, 52, and 54-56 are now pending in this application.

Information Disclosure Statement

Applicant submitted an Information Disclosure Statement and a 1449 Form on June 10, 2003. Applicant respectfully requests that initialed copies of the 1449 Forms be returned to Applicants' Representatives to indicate that the cited references have been considered by the Examiner.

§103 Rejection of the Claims

Claims 1-2, 4, 14-15, 17, 51-52, and 54-56 were rejected under 35 USC § 103(a) as being unpatentable over Maiti (U.S. Patent No. 6,020,024) in view of Park (U.S. Patent No. 5,795,808), or Takeoka (U.S. Patent No. 4,647,947), or Thomas (U.S. Patent No. 4,920,071).

Claims 22-23, 25, 30-31, and 33 were rejected under 35 USC § 103(a) as being unpatentable over Maiti (U.S. Patent No. 6,020,024) in view of admitted prior art (pages 1-4) and Park (U.S. Patent No. 5,795,808), or Takeoka (U.S. Patent No. 4,647,947), or Thomas (U.S. Patent No. 4,920,071).

Claims 5-7, 18-20, 26-28, and 34-36 were rejected under 35 USC § 103(a) as being unpatentable over Maiti (U.S. Patent No. 6,020,024) in view of admitted prior art (pages 1-4) and Park (U.S. Patent No. 5,795,808), or Takeoka (U.S. Patent No. 4,647,947), or Thomas (U.S. Patent No. 4,920,071) as applied to claims 1, 14, 30 and further in view of Yano (U.S. Patent No. 5,810,923).

Claims 8-10, 12-13, and 21 were rejected under 35 USC § 103(a) as being unpatentable over Maiti (U.S. Patent No. 6,020,024) in view of Park (U.S. Patent No. 5,795,808), or Takeoka (U.S. Patent No. 4,647,947), or Thomas (U.S. Patent No. 4,920,071) and further in view of Moise (U.S. Patent No. 6,211,035) and Yano (U.S. Patent No. 5,810,923).

Claims 29 and 37 were rejected under 35 USC § 103(a) as being unpatentable over Maiti (U.S. Patent No. 6,020,024) in view of admitted prior art (pages 1-4) and Park (U.S. Patent No. 5,795,808), or Takeoka (U.S. Patent No. 4,647,947), or Thomas (U.S. Patent No. 4,920,071) and further in view of Moise (U.S. Patent No. 6,211,035).

The rejections state that Maiti teaches “vapor deposition of a metal oxide or sputtering and oxidation of a metal layer.” Maiti appears to show chemical vapor deposition (CVD) of a metal oxide or sputtering a metal layer followed by oxidation to form an oxide layer (col. 3, lines 30-52). However, Maiti does not show depositing a **substantially amorphous** metal layer on the body region using electron beam evaporation and oxidizing the metal layer to form a metal oxide layer on the body region.

In contrast, independent claims, as amended, include depositing a substantially amorphous metal layer on the body region using electron beam evaporation and oxidizing the metal layer to form a metal oxide layer on the body region. Applicant’s specification on page 7, lines 14-19 states that “a lower presence of grain boundaries in the substantially amorphous material layer 320 reduces the leakage current through the final gate oxide.”

Because the cited references, either alone or in combination, do not show every element of Applicant’s independent claims, a 35 USC § 103(a) rejection is not supported by the references. Reconsideration and withdrawal of the rejection is respectfully requested with respect to Applicant’s independent claims 1, 9, 14, 22, 30, 51, and 55. Additionally, reconsideration and withdrawal of the rejection is respectfully requested with respect to the remaining claims that depend therefrom as depending on allowable base claims.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 09/945535

Filing Date: August 30, 2001

Title: HIGHLY RELIABLE AMORPHOUS HIGH-K GATE OXIDE ZrO₂

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Dkt: 1303.026US1

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 373-6944) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743

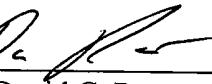
Respectfully submitted,

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By their Representatives,

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Date 9-24-03

By 
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O.Box 1450, Alexandria, VA 22313-1450, on this 24th day of September, 2003.

Name

Amy Moriarty

Signature

